The Keys to the Kingdom have been Distributed: An Organizational Analysis of an Academic Computing Center

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ABSTRACT

THE USE OF CULTURAL ANALYSIS AS A TOOL with which to understand various organizational phenomena is not a new concept. However, it is one that has been infrequently applied to library research. Researchers are not introduced to qualitative research methodologies early on, in part because, at the master's level, traditional library school curricula have focused on teaching quantitative research methods. This article focuses on the use of cultural analysis, or the ethnographic approach, as a methodology to study an academic computing center. The study was conducted in order to understand the culture of computing professionals and to assist librarians in developing ways in which the two groups of professionals can work together in a rapidly changing information climate to better serve the needs of library users.

CULTURAL ANALYSIS—THE ETHNOGRAPHIC APPROACH

Culture, "the acquired knowledge that people use to interpret experience and generate social behavior" (Spradley, 1979, p. 5), provides people with a way of seeing the world. It categorizes, encodes, and otherwise defines the world in which they live. Whenever people learn a culture, they are to some extent imprisoned without knowing it. Anthropologists talk of this as being "culture bound"—i.e., living inside a particular reality. References to culture have long abounded in library professional literature. However, it is only fairly recently that the literature shows references to culture as a lens through which to interpret and understand organizations, their customers, and the working relationships therein (e.g.,

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Plum, 1994; Lee & Clack, 1966; Shaughnessy, 1988). The "cultural analysis" of organizations, therefore, is the use of organizational culture as a lens through which to examine what is going on in an organization.

What is Ethnography? Early Examples

The study of culture, known as ethnography, provides observations that say "Before you impose your theories on the people you study, find out how those people define their world" (Spradley, 1979, p. 5). Ethnography has its origins in field work expeditions to places like Samoa and the Kalahari desert and has now become a fundamental tool for understanding ourselves and the multicultural environment of which we are a part. Management theory in the 1980s underwent a sea of change in its realization that an understanding of an organization's culture(s) could be a major step on the road to changing or controlling the direction of that organization. There are both positive and negative sides to how an understanding of culture can be used within an organization. For instance, Edgar Schein (1992) considers the process of creating culture and management to be the essence of leadership, while Gideon Kunda (1992) describes a culture which embodies both the implicit and explicit rules and behavior of a particular group of people and the conscious efforts of management to "engineer" the culture to its own goals.

Contemporary attentiveness to technology can sometimes obscure the importance of culture to a functioning organization. Diane Vaughan (1996) seeks the answer to a national tragedy in her ethnographic study *The Challenger Launch Decision: Risky Technology, Culture, and Deviance at NASA.* She uses ethnographic thick description, a direct handing down from the father of interpretive ethnography, Clifford Geertz (1973), who expanded on Gilbert Ryle's concept in his seminal essay "Thick Description: Toward an Interpretive Theory of Culture." Vaughan's verdict is that the root cause of the accident was not the faulty O-rings but the NASA culture—"a culture which normalized deviance" (deviance in the sense of the unexpected or nonstandard occurrence)—thus leading to a series of decisions culminating in the accident.

The anthropologist's approach in studying contemporary phenomena can be seen in the work of one of today's most highly respected cultural analysts, Sherry Turkle (1996), professor of the sociology of science at MIT and author most recently of *Life on the Screen: Identity in the Age of the Internet,* who has been described as the "leading anthropologist of cyberspace." In an interview in *Wired* (McCorduck, 1996), Turkle described herself as an ethnologist who "lived within worlds new to me, tried to understand what they were about, and tried to write about my understandings so that the worlds I studied come alive for others" (p. 162). Turkle talks about her books as diaries, uses the term "fieldwork," and describes her work as "sociology as narrative, story, text, language" rather than that of numbers, while being firmly

undergirded by sociological method and psychoanalytical theory (McCorduck, 1996, p. 162). Both Vaughan and Turkle use a "soft" technique—intuitive, rich, and impressionistic—characterized by the use of heavy brush strokes and considered the hallmark of ethnographers trained in the thick description tradition of Clifford Geertz (1973, p. 28).

The characteristics of ethnographic description are that it is interpretive of social action, of the flow of social discourse, and that interpreting it consists of fixing that discourse in perusable terms (Geertz, 1973, p. 20). Cultural analysis is intrinsically incomplete—i.e., the deeper you go, the less complete it is. The essential point of interpretive anthropology is not necessarily to answer our deeper questions but to make available answers that others—i.e., informants—have given. Culture, the cognitive map to which we refer on a daily basis, cannot be observed directly. It needs to be inferred and is predicated on being able to get inside people's heads. The emphasis is thus shifted from observation of behavior to the meaning of that behavior, from observation of phenomena such as customs, objects, and emotions, to their meaning. An ethnographer "inscribes" social discourse (Geertz, 1973, p. 19).

Like many research methodologies, cultural analysis has several different streams of thought and ways to approach fieldwork. My particular approach is colored by the interpretive view with a leaning toward the culture stream led by theorists such as Clifford Geertz as opposed to the functionalist view of Edgar Schein, who uses culture as a management approach to solve a problem (Keesing, 1974).

What Ethnographers Do

What do ethnographers do, and how is what they do relevant to our profession? Ethnographers listen to and observe in a culture that which is of interest to them. They share their observations with the rest of the world in a way that brings those observations alive to the reader, while at the same time providing insights that the natives or inhabitants of that culture might not be aware of because they are so immersed in it. In Fall 1994, this author conducted a cultural analysis of an academic computing center. Although this project was done specifically as an academic research project, it was undertaken to conduct ethnographic research in an area that was of particular professional interest. As most ethnographers do, I chose a particular environment because there were good theoretical and empirical reasons to think that this organization might be an example of particular theories I was developing. Ethnology thus provided a method for simultaneously theorizing about an organization and examining a substantive issue in the organization under study—i.e., communications.

The Cultures of Librarians and Computing Professionals

As information access is increasingly electronic, as networked technology becomes more robust, and as electronic resources proliferate,

librarians are developing stronger working relationships with computing professionals on campus. The literature on the topic of libraries and computing centers shows that the focus has changed over the last ten years from an emphasis on organizational structure to an emphasis on organizational culture (McCombs, 1994). Key differences in the organizational cultures and work practices of libraries and computing professionals have been well documented (Allen, 1995). Although there is a considerable amount written on the librarians' point of view of working relationships with computing professionals, little has been written from the point of view of academic computing professionals. What is going on in their lives? How are they adapting to rapid technological change and increased customer demands? This cultural analysis of an academic computing center attempts to document, from the nativist point of view, just what was happening in the lives of these computing professionals.

Storytelling and Grounded Theory

The methods of journalists such as Tom Wolfe closely resemble some of the ethnographic techniques described here. The authors, in many cases, live for a certain time with their informants, develop a wealth of data in their field notes, and focus heavily on the language of the informants. However, the prime aim of these writers is to tell an interesting story, not primarily to understand more about the human species. The "stories" are usually set in isolation; they are not required to meet the requisite criteria of significance, generalizability, reproducibility, precision, and rigor; and are not used to build a "theory" to explain the informants' culture. There is little attempt to analyze or interpret the data collected and described.

However, in spite of the difference in methodologies and theoretical grounding, good ethnographies have in common with these journalistic documentaries the ability to "tell a good story" about something that will be of interest to a wide audience. The theories developed from this empirical data of cultural description are called "grounded theory" and defined by Strauss and Corbin (1990) as theory "that is inductively derived from the study of the phenomenon it represents. That is, it is discovered, developed and provisionally verified through systematic data collection, and analysis of data pertaining to that phenomenon" (p. 23).

Cultural Forms/Terminology

Ethnographic techniques are similar to those required for a good reference interview—the skills of good listening and empathy—to which are added heightened powers of observation and memory and the harder skills of holding individual values in abeyance. One also needs the ability to see patterns, make connections, and see relationships, as well as notice the unexpected and the different. One has to be able to stand outside oneself, as does Geertz's (1973) "specter" (p. 412), and fade into the cultural background. And above all, one needs stamina—both to be atten-

tive for long periods of time in the field and to spend many hours later transcribing field notes and observations. Some of the most frequently studied forms that help us get a hook into a particular culture include rites, rituals and ceremonies, myths, stories and legends, symbols, gestures and artifacts and, most importantly, the natives' language and physical setting. Ethnography is characterized particularly by its emphasis on language, both in the study of the natives through the language they use and in the language used to communicate one's own analysis in a way that speaks directly to the reader. Similarly, there are some important terms that are part of the ethnographic vocabulary. The terms "native," "informant," or "participant" are used to denote the people whose world one is seeking to understand, the native speaker who is a source of information (Spradley, 1979). The process whereby the ethnographer attempts to do this is called "doing field work," and the vast number of notes accumulated during this process are "field notes." There are various levels of field notes. Primary data are the actual words of the participants; secondary data are one's own thoughts as the observer, which are extremely important in the analysis and in the development of grounded theory. The ethnographer goes through a process of "coding the data," developing the taxonomy whereby the data will be analyzed and the central themes teased out. There is a whole set of terms specific to the ethnographic interview, including "grand tour questions"—which attempt to get a "big picture view" similar to taking the "grand tour"—and "mini tour questions," which deal with a much smaller area of experience (Spradley, 1979).

Relevance of Ethnography for Library and Information Science

Ethnography is the one systematic approach in the social sciences that leads us into those separate realities that others have learned and which they use to make sense of their worlds. From a library researcher's perspective, this approach can be used to study the worlds of our users and of our partners—e.g., computing professionals, trustees, and corporate sponsors.

Organizational Analysis of an Academic Computing Center

"Pete (the Computing Center Director) inviting you to look at how we communicate was richly ironic for two reasons. One is, by most objective standards, Pete is a horrendous communicator. But on the other hand, he doesn't value it at all really."

This was just one of the many ironies encountered during this author's cultural analysis of Information Technology Services (ITS), an academic computing center in a large and well-renowned university. Although the original intent was to study communication, it was soon discovered that the openly acknowledged communication problems, as well as the deep sense of alienation within the organization, were merely the symptoms of

a much deeper underlying problem—the cultural lag that occurs when a culture's value system has been challenged and new values have not yet been developed. This article will show that radical technological change has called into question the value system that has been in place in academic computing for the fifty years since its inception, resulting in a sense of alienation, dysfunctional communication, and loss of identity.

Site Information

The academic computing center, or Information Technology Services (ITS) as it was renamed, comprised about seventy-five people, with a director's team (DT) consisting of the director (Pete*) and seven associate directors(AD). This management structure was relatively new, having been flattened from a more hierarchical structure composed of the director, two associate directors, and a third management layer of several managers. The area of observation was limited to the DT. Everybody in the DT had been there over ten years, except for Boris Richards,* the associate director for High Performance Computing, who was hired twelve months previously. Most of the DTs (the common name for the group of associate directors), as well as the director (described as having "been here longer than God"), had been there between fifteen and twenty-five years.

The data consist of formal interviews and extensive field notes based on observations of DT meetings and other events done between October 5 and 31, 1994. Formal interviews were conducted in the office of each member of the DT, and observation was conducted by attending the directors' team meetings for three weeks. Mean interview time was slightly over one hour. All interviews were taped, transcribed, and coded individually. Less formal conversation took place through follow-up phone calls and meetings with the subject. The data were analyzed using a grounded theory approach (Strauss & Corbin, 1990). Both interviews and field notes were content coded.

Trouble in Camelot: First Impressions

When I arrived on campus to meet with the director to discuss my proposal, the first glimpse of the ITS was momentarily disconcerting. The computing center is housed in a converted chapel, calling up intimations of Tracy Kidder's *In the Soul of a New Machine*—i.e., a Christian soul replaced by a soul-less technology. The inside of the church had been retained and the walls were of a beautiful multicolored stone. Light flowed in through stained glass windows. The main area of the chapel had been converted into student user rooms which were busy but not frenetic. In the reception area, a tall man, about 55 with grey hair and a beard, was talking to a woman seated at one of the desks. When I mentioned I had

*The names have been changed to preserve confidentiality.

an appointment with the director, she nodded her head to the man she was talking to, but he continued their conversation. He did not say hello. I felt foolish just standing there. It seemed rude to me that he, obviously the director, did not break off to at least say hello.

After they had finished their conversation, I was invited into the director's office. Although the uncertain tenor of the conversation was a signal to me that this project still might not happen, Pete eventually said that he thought we might be able to work something out. "We have a real communications problem in this organization, an example of which we saw this week, a real big slip-up in communications." This conversation was disconcerting like so many of my interactions in ITS. The tone of the conversation was slightly aggressive; there was little attempt at social conversation. Communications were acknowledged as faulty but were described as a "slip-up," a one-time error. The awkwardness continued until the end of the interview, with the director standing for much of the time, his back against the wall, rocking to and fro. I had achieved my purpose, entry into the organization, and had permission to be present at the upcoming DT meeting and to interview all the DTs. However, the signals were loud and clear that I was entering a realm where the expected rarely happened, where timing and communication seemed both disjointed and disconnected, and where asynchronous rather than synchronous mode was preferred.

Mad Monks in the Chapel: Original Values

The data were very clear on what the original values were. All the informants in the DT talked about how it used to be, "back in the mainframe days." "Before we went to Unix, the place prided itself on being an A No.1 technical shop. . .people would get here between 9 and noon and they would stay here until 9 or midnight and everybody was producing lots of code and they were having a ball." There was a common understanding of what the job was and how it would get done: "Back in the 60s and 70s, it [the original unit] had the mainframe, and as was typical for computer operations back then, it did everything 'slowly but surly,' and people accepted that and that's basically the way they were. But they did it reasonably well, they delivered a good product at reasonable cost to the university."

Technical expertise, combined with a goal-oriented approach and a high level of productivity, was considered to be the most important value. "Our high water mark was several years ago when the quality of the staff was, to my way of thinking, outrageous." With these values, the computing center was able to deliver a satisfactory product to its clients and to feel that they were being of service to the campus as a whole. "We had some people here who were really first rate—actually better than what we have now—who put in an enormous amount of time and were good, and they

made a lot of things happen in an entrepreneurial fashion." It was a time when "assigned roles more or less had clear boundaries." The hierarchical organizational structure both insulated the director from the day-to-day problems of the staff and insulated the staff from having to communicate directly with their clientele.

Communications skills were not valued, and people were heard to literally hide if clients were in the building. The staff were referred to as "the mad monks [who] were driving their own destinies," in control of their lives and their jobs. They were mostly self taught, few had anything beyond a bachelor's degree, and they thought of themselves as "paternalistic in the best sense of the word." They also considered themselves to be "holding the keys to the kingdom." There was nobody on campus to question their expertise, and everybody was dependent upon them to make sure that the technology performed.

Technological Change

By the mid-1980s, computing technology had begun to move from mainframe systems—which supported many departments—to distributed systems that often resided in the individual department. At the same time, there was a large increase in general public use of personal computers, described by one informant as "the orgasmatron of the Nineties." Computing was suddenly pushed to the forefront of campus support operations. ITS staff found themselves confronting radically new technology, a role in the spotlight, and a user base that knew as much about the technology—if not more—than they did. One of the DTs described this change:

> This organization went from a single mainframe where we controlled everything about it, including all of the operating system, to an organization which has 250 workstations, all of which are running different flavors of Unix, where Unix isn't a particularly robust operating system and is very dependent on networks . . . so you're working with people who went from a black and white environment which they controlled, from [the director] on down to the most junior programmer, to one where nobody controls much of anything. The result is that most of us are a little confused as to what the hell we are.

Symptoms of Dysfunctionality: "What We have Here is a Failure to Communicate"

The indications that the unit did not adapt smoothly to this change are manifested in the much-discussed communications problems. My introduction to the members of the DT was an example of this. Although it was suspected that my presence was an unexpected surprise considering the reactions of the DTs at the first group meeting I attended, it was not until I interviewed the DTs individually that I discovered that nobody had actually been informed of my arrival. "I first knew you were coming when you walked in the door, none of us knew who you were. At least three

people asked me who you were." Reactions ranged from "it was shocking," through "feeling a little invaded," to "it's not a problem if it has nothing to do with me."

Clipped to one of the DTs' bulletin board was the famous line from the Paul Newman movie *Cool Hand Luke*, in which the prison warden says to Newman's character: "What we have here is a failure to communicate." My informant had seen this sentence in an ad and clipped it on his bulletin board because it highlighted for him the irony of communications in ITS. "We give a lot of lip service to the need to communicate and we do, to varying degrees, work at it. But it's not a strong value of the culture." Failure to communicate was even considered by some to be the main block to changing the organization: "I think the main block [to change] is our collective view of the importance of, the priority of, communication, which is that it's not very important." Although it was hard to get people to actually attempt a definition of the cultural characteristics of the unit, the inability to communicate was mentioned as a characteristic: "That's part of the culture, that we complain that we aren't communicating and part of the mythology, and I think that it is certainly true. It's not just a myth."

To get a feel for how the DTs were communicating (or not), I analyzed the traffic on the DT electronic mail list which I joined for the duration of my data collection (see Figure 1).

PERSONNEL
1 Director, 7 Associate Directors, 1 secretary

TIME PERIOD
10/12 - 11/8 (28 days)

MESSAGES
total = 27 (1 a day, or 3 messages a person in 28 days)

Breakdown

Director (Pete Brody)	8 (At least 1 of those was sent by the Secretary)
Secretary (Nancy)	5
AD (Larry)	4
AD (Rita)	3
3 ADs (Jim, Dave, Boris)	1 each
AD (Jack)	0
AD (Barry)	0 (quit during this time period)
Other people	3

NOTE: The Director and the Secretary account for almost half the traffic.

Content Analysis

General (minutes, FYI, informational)	11
Specific (Issues, questions, opinions)	16

Figure 1. ITS Directors' List Traffic Log

The e-mail log showed a number of things. First, there was very little traffic at all, which assumes that either no communicating is going on, or that it is going on via some other mechanism. Second, by tracking specific situations and their responses, it became clear that even when a message was sent that would normally require a reply from each member of the list, this did not happen. What happened in practice did not mesh with the avowed purposes for which the list was set up—i.e., to discuss issues of mutual importance and to share information horizontally and on a regular basis. I also constructed a sociogram which showed who communicated with whom (see Figure 2).

The sociogram showed a similar disjuncture between stated intent and practice. If the DT was working effectively as a team, communication patterns should have reflected that. However, what actually emerged was a system of nodes and outliers. The director communicated mainly with his "inner circle" (two DTs who were the original associate directors) and the DT responsible for High Performance Computing. The two DTs who dealt primarily with the users are clustered together; they also happen to be the two DTs who were designated the "touchy-feelies" by their colleagues. There were two outliers who communicated with nobody, and the DT for High Performance Computing who communicated only with his own clientele (an insular group of faculty involved primarily in research needing number crunching of large data sets) and the director. A pattern thus emerged revealing a disjuncture between the way people *said* they behaved and the way they *actually* behaved.

The majority of the DTs seemed to lay the blame for the lack of communication at the door of the director. One DT analyzed one of the messages on the DT list as an example of the director's poor communicating skills: "For example, this message, in the title, subject, Capital Budget, but in fact, the agenda is buried in this. 'Support may also be an issue.' What the hell does that mean? Did someone complain about it, is it something specific, is it something generic? I don't know what that is. This one (referring to a topic), 'Broadcast Email and other Informational ...' Here's a word that's poorly used. It means 'for your information,' or 'of information systems?'"

The director's inability to give the correct communication cues was noted on several occasions. "The best example of Pete's communication style is when they [sic] receive an award, and if you just cut him off at a certain point, you're hard pressed to say if he was introducing them to fire them or give them an award." A tendency to leave open things that should be pinned down was in evidence. While I was there, the director sent a memo to all ITS staff purporting to invite them to a reception to honor a departing dean. The memo did not state exactly what the event was going to be nor was there a time or place mentioned. The memo also said: "My style is to let the staff decide whether or not they want to attend a social

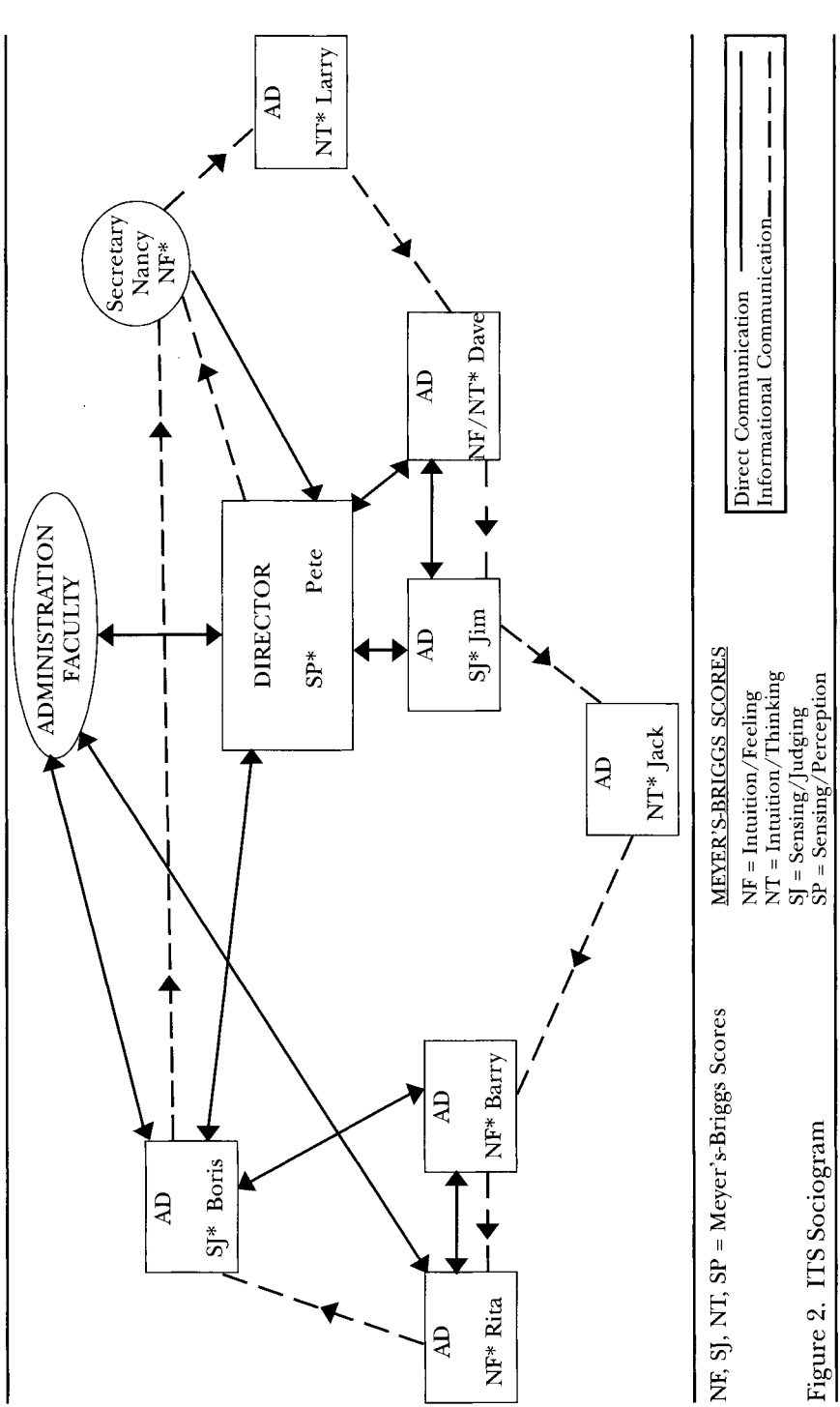

Figure 2. ITS Sociogram

event." This open attitude, however, was contradicted at the end of the memo: "P.S. There will be a campus-wide recognition party announced for Bill. I hope there will be a strong showing from ITS at that event also."

Ambiguity: The "killer app."

Other evidence of dysfunctionality was the fact that the whole environment seemed to suffer from an almost Kafkaesque sense of alienation and chaos. It was a place where objects and events appeared to have no sense or meaning. Nobody in the group seemed to know what was going on: "I learned from our own newsletter that we were going to be cutting back hours." Nobody knew even who was actually employed by the unit. The secretary complained that she was nicknamed "the mystery lady" for six months because it took that long for the director to tell anyone who she was. Staff members were scheduled to move to other offices or have staff move in with them without being told first. My arrival in the organization was one more example of "we hadn't a clue." When I asked questions such as, "How did people reach decisions?" I would receive answers such as, "you tell me" or "I haven't yet figured out how anything gets done around here." There was a constant complaint that "some of the time that's funny, and some of the time it's downright embarrassing." Several of the DTs were unable to describe their area of responsibility, what it was they actually did. "You will have to ask Pete about why he brought me here. I don't know whether I am doing what he wanted me to do or not." "What do I do? I don't know!"

There were a number of major issues that kept coming up as examples of the chaotic nature of the place. One of the most often cited examples was the fact that the DTs, all of whom were supposed to become associate directors when the organization was flattened a year previously, still did not have official titles. "Yes, we're very good with titles, we just make them up." "Pete will say very happily, no angrily, if anyone raises this issue, that we have more important things to think about ... and anybody who cares is a wimp." This ambiguity was underscored by the fact that the DTs were sometimes called the managers, sometimes the associate directors, sometimes the DTs, sometimes just the management team.

This inability to come to successful closure was a source of frustration for many. "To have things sort of hanging on indefinitely is a real sense of cognitive dissonance that puts stress on our internal system . . . especially for control freaks like me." Pete's style of asking people to do things was described in detail by one of the DTs:

> His style is to sit down with you for an hour or two, and somewhere along the way make a case indirectly for why it would be very useful in the way of work for you to do this thing, and you'd come away from the experience with a motivation to do it. But that's hard to apply to something like filing a monthly report. I mean you don't come around and sit down and talk to someone for an hour or so to

> persuade them to file their monthly report. So he doesn't do that. And the alternative, to simply announce to the entire group that monthly reports are due a week from Monday, and I need it, I want it, for sure. That would happen. If he did that, we'd do them. But he doesn't do that and is not gonna do that.

The fact that nothing was ever pinned down at the same time allowed the DTs to ignore what the director wanted if they did not like it and focus on their own agendas. "This is a very strange organization. I don't know exactly how he does anything. But it seems like our director suggests things he'd like done and then people decide whether or not to accept his suggestion. So I'm surprised that anything gets done." The inability to come to closure allowed the DTs a large grey area within which to interact, enabling them to avoid responsibility for following through on decisions or policies that they disagreed with. It allowed their personal value systems ("world view" as it was called by several) to determine the services they provided. The DT responsible for e-mail systems thought that "electronic communication makes cowards and indolents out of all of us," and that "I never saw a piece of paper I didn't love," thus indicating his disdainful attitude to e-mail service. Although there was a desire for more direction—"I really wish he would sit down and send me a one paragraph note about something that's going to happen"—at the same time that ambiguity is valued—"When people say they like working at a university, what do they mean? They mean, no.1, nobody can figure out what you're supposed to be doing, and everybody likes that."

There were no good benchmarks of success: "You don't really have a good hard metric as to what works, what doesn't. It's hard to tell what's right and what's wrong. How do you prove anything? And I think that's what nails us." The obvious "metric" of user satisfaction was not even considered as a valid measurement of success. At the same time, the whole concept of team management was dismissed: "We're way too egalitarian. I tend to do things much more hierarchically."

The world of computing itself was defined as a world in which "everything is open for discussion . . . there are no natural restraints, that is why we need discipline." This need for structure and boundaries was expressed by several of the DTs: "The fact that with us nothing is physically substantiated is a killer." The technology and the environment reflect the same ambiguity: "It [technology] is itself very non-deterministic, and you can never tell when the problem went away why it was there to begin with." In the past, "we had more or less clear boundaries," but the new technology means that "we find it very difficult to place limits, boundaries on what it is that we do." "We want to make everybody happy, so the contradiction is there that if you can't define what it is you're doing, then you'll wind up being of less service. I think that's one of our fundamental contradictions . . . and we cannot deal with it in a satisfying way."

Let's Get on the Telegraph: Espoused Versus Real Values

People engaged in state-of-the-art technology still talked about getting on the telegraph and cranking things up. Service to the user was talked about as the prime value, yet users were sometimes turned away without a satisfactory resolution to their problems; the Dean of Faculty was told to call his friends on the phone to tell them his e-mail address had changed; the President was not allowed to send bulk e-mail to his campus constituents. What were the espoused values and how did they differ from the real values?

The espoused values of service, communication, flexibility, and vision seemed to be belied by adherence to the "real" and, in many cases, "original" values—technical competence, long hours of solitary work, putting out fires, and well-defined boundaries. The organization stated its desire to work as a team, yet continued to interact the same old way. They paid lip service to the value of communication, yet did not communicate. They aspired to visionary, distributed technology, yet the organization's brochure described the desire to form the unit into a "monolithic organization."

The director's view on values was that "we have historically wanted to do things well, 110 percent. But with the change from mainframe to distributed systems, there is frustration that they cannot do 110 percent or even 100 percent, it's closer to 80 percent. Many people are perfectionists, we can't afford that extra 10-20 percent." The DTs had difficulty in defining current IT values as a group, only their individual values, such as "goal orientation. Giving something a utility and value-added contribution, making a unique contribution." Although planning and reporting were cited as important, nobody did either activity. Although a vision of the future was considered essential, in fact being a firefighter and "going from hot button to hot button" was cited as the order of the day.

The director's response to the question of why he had not officially made the personnel changes reflected both a desire for ambiguity and a gap between real and espoused values. Although the DTs were led to believe they were a team of equal members, Pete's own view was that "Jim and Dave should still be associate directors and the others assistant directors," which is what happened in practice.

This ambiguity of title and position had resulted in a kind of schizoid reaction, "Pete hasn't challenged me at a time when he should have, and it's clear I have screwed up. Now he's challenging me when I have screwed up, and I don't like that either. Damned if you do and damned if you don't." The constant friction between real and espoused values was exhausting and it showed. "In this book ... one of the characters gives somebody a dead mole, which plays a central part in this stupid book, and says, 'Here, you can have this one, the fun is squeezed out of this one for me.' That's what I feel about my job. The fun is squeezed out of this one for

me." Another DT said that he had given up on change: "I'm not so interested in change any more. What would change? I don't have an answer to that. I really don't know. There are really fewer things you have the energy to change."

The Past is Still with Us: Evidence of the Original Values System

One of the DTs described his vision for the future: "a design to create a special organization that was pure infrastructure . . . no individualized support. We won't teach you how to use your PC, but we will make sure the electricity is there when you turn it on." In essence, this is a return to the time of "the mad monks," when there were no users to disrupt the man-to-machine connection. The major thing described as blocking change for one DT was "its own culture that developed over the years. They've lost what they had before," and it has not been replaced by anything else. Now it is seen as "a weak culture, a weak hierarchy, and a weak leadership" combined with an "absence of direction."

Evidence that the old value system was still at work was shown in the high status accorded the DT for High Performance Computing, Boris Richards, the most recent hire. He could do no wrong: "Pete Brody loves my a**, and I have no idea why." But it was clear that, for most of the DTs, Boris personified the acme of their original value system. He worked only with big machines, he had little interaction with the general user, and there was no dissonance between the level of service he provided and the service demanded by his users. He was a worker/manager, preferred to communicate asynchronously (he sent out a lot of e-mail which required no reply or human interaction or feedback) and, because of his double master's degrees and twelve years spent at an ivy league school, he had both the intellectual cachet and none of the baggage of having belonged to the old organization. Boris described himself as rulebound, denigrated the "touchy feelies" (who worked with student users), and essentially only communicated with his faculty users and the director.

Conclusion

My final analysis was that the DTs were marooned in a limbo in which the original values of the unit were, in spite of claims to the contrary, still dictating the way things got done. The current leadership was unable to define a new set of values that would help staff to learn new ways of doing things, new meaning systems that, according to Schein (1992), would help them deal with crises (p. 237). In the meantime, this dissonance was proving catastrophic to their personal and professional lives and impacting on their ability to provide adequate service to their users. The communications problems were merely a symptom of this state of affairs.

In Franz Kafka's novel, *The Castle*, the protagonist K. reaches an inn where he is denied lodging. The innkeeper says to him: "You're probably

surprised by our lack of hospitality, but hospitality is not our custom here. We have no use for visitors" (Kafka, 1930, p. 19). K. is constantly walking toward a castle that seems to get further away from him. Technology such as the telephone promises an ease of communication that seems to get further away from him. Such, I discovered, was the state of affairs at ITS. As Kafka said about *The Castle*: "This is of course a state of affairs that, if it is not to cause the greatest damage to everyone. . .must if possible not be allowed to last a moment longer. We have been searching for the reasons and have discovered various things that might possibly be to blame for it." As I left the ITS chapel for the last time, I turned and saw the stone glow pink in the setting sun and stood like K.: "For a long time gazing into the illusory emptiness above" (Kafka, 1930, p. 9).

Postscript

Some weeks later, I returned to the organization and presented my findings to the DTs. I provided a much-abbreviated overview of my findings and reduced the number of direct quotes so that I would not breach my promise of confidentiality to the informants. At a point in the middle of my presentation, I stopped and asked the group if, before I continued, they could let me know if this represented an accurate picture of their "world." Although the whole process was obviously painful, there was consensus that, indeed, this picture was accurate. Considerable interest was generated by the analysis of the e-mail log and the sociogram. When I left, the group was in the middle of an intense conversation about values with a couple of the DTs not being able to fathom why valuing technical competence was seen as contradicting the espoused desire to give good customer service or why the latter was only seen to be an espoused, rather than a real, value.

How did this ethnographic study help me in my daily interactions with computing professionals? It was because of this desire to understand the culture of academic computing professionals, in order to improve my own relationship with those computing professionals with whom I worked, that I embarked upon this cultural analysis. During this study, I hoped to find the answers to some of my own questions about how computing professionals defined their world. As library coordinator for the University at Albany's system migration 1992-1994, I spent two years working hand-in-hand with my colleagues in Academic Computing. Although our task was completed successfully, it became clear to me along the way that, though we had become close friends and colleagues with our opposite numbers in Academic Computing, this happy state of affairs did not happen overnight. Librarians and computing professionals come from different organizational cultures, communicate differently, use different decision-making techniques, and have very different ideas on how to bring a project successfully to completion (Allen, 1995). The question of why we were so

different and what we could have done differently was constantly on my mind. Embarking on this cultural analysis helped me to understand the process I had just gone through, to follow up with strategic questions, and see connections that would otherwise have been hidden. This is one of the higher aims of ethnology, to "aspire to understanding and interpretation, not to prediction and explanation" (Keesing, 1974, p. 93).

The "Useful Miracle"

In the library field, a number of people have been farsighted enough to focus on culture as a way both to understand and manage our organizations. In October 1995, Abigail Hubbard gave a LAMA-sponsored seminar in Columbus, Ohio, entitled "Organizational Culture: Pathway to Success." The focus was on "actively managing organizations as a productivity issue" and included sessions on creating effective communication patterns, rites, rituals, and oral history. During the same time frame, Harvard College underwent a library-wide program to understand the Harvard College Library culture and redesign the library and library services accordingly (Lee & Clack, 1996).

In 1994, Terry Plum used "ethnographic illustrations" to try and analyze the interchanges between librarians and their users in order to indicate "directions that libraries and library staff should take to integrate technological advances into new social relationships and rituals" (Plum, 1994, p. 496). In this era of rapid technological change, it is crucial that our profession works more closely with other information stakeholders, including educators, publishers, and technology providers. Using ethnographic methodology can help us understand how to merge with these cultures rather than just work next to the actors. Ethnography offers us the chance to step outside our narrow cultural backgrounds and comprehend the world from the viewpoint of other human beings who live by different meaning systems. Ethnography adds a tool to the qualitative research toolbox which allows us to do this. As Plum (1994) states: "The data collected will lead to managerial change in ways that the collection and dissemination of user output statistical data cannot" (p. 508)

Citing Clifford Geertz in *The Electronic Word: Democracy, Technology and the Arts,* Richard Lanham (1993) writes: "All that we can hope for, that rarest of phenomena, a useful miracle, is that we can devise ways to gain access to one another's vocational lives" (p. 151). My ethnographic study of an academic computing center has been just this for me, "a useful miracle."

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